

XP-002310338

(C) WPI/Derwent

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AP - WO2004JP01291 20040206

CPY - DAIW

DC - D16 F06

DS - BE CY EA FR GR IE IT MC NL OA SI SZ

FS - CPI

IC - C12N9/52 ; C12S3/14 ; D06M10/02 ; D06M16/00

IN - SHIMIZU Y; TAKAGISHI T

MC - D05-A02C F03-A02

PA - (DAIW) DAIWA KASEI KK

PN - WO2004070106 A1 20040819 DW200460 D06M16/00 Jpn 033pp

PR - JP20030029610 20030206

XA - C2004-225023

XIC - C12N-009/52 ; C12S-003/14 ; D06M-010/02 ; D06M-016/00

AB - WO2004070106 NOVELTY - Shrink-proofing (M1) animal hair fiber, involves subjecting the animal hair fiber to a pulse corona processing or an oxidation treatment using chlorine-free oxidizing agent, and enzymatically treating the above fiber with alkaline protease which has an activity of digesting keratin of 70 AKU or more.

- DETAILED DESCRIPTION - Shrink-proofing (M1) animal hair fiber, involves subjecting the animal hair fiber to a pulse corona processing or an oxidation treatment using chlorine-free oxidizing agent, and enzymatically treating the above fiber with alkaline protease which has an activity of digesting keratin of 70 AKU or more, a ratio of collagen digestion activity to keratin digestion activity of two or lesser, and a ratio of elastin digestion activity to the keratin digestion activity of four or lesser.

- INDEPENDENT CLAIMS are also included for the following:

- (1) shrink-proof animal hair fiber (I) obtained by (M1); and

- (2) a textile containing (I).

- USE - (M1) is useful for shrink-proofing animal hair fiber (claimed) such as sheep wool, cashmere, alpaca, angora wool, etc. (I) is useful for producing textiles such as animal hair thread, animal hair knit fabric, and animal hair non-woven fabric.

- ADVANTAGE - (M1) is an improved shrink-proofing method that provides animal hair fiber having excellent shrink-proofing properties. (M1) does not use chlorine agent, thus avoiding environmental pollution. (M1) allows production of animal hair fiber without losing its original texture and without substantial strength reduction. (M1) does not require pressure reduction, and is cost effective and time effective. (I) is not shrunk by repeated washing. The textiles produced by (I) can be washed using domestic washing machine without the need for dry cleaning.

- (Dwg.0/0)

DN - AE AG AL AM AT AU AZ BA BB BG BR BW BY BZ CA CH CN CO CR CU CZ DE DK  
DM DZ EC EE EG ES FI GB GD GE GH GM HR HU ID IL IN IS JP KE KG KP KR  
KZ LC LK LR LS LT LU LV MA MD MG MK MN MW MX MZ NA NI NO NZ OM PG PH  
PL PT RO RU SC SD SE SG SK SL SY TJ TM TN TR TT TZ UA UG US UZ VC VN  
YU ZA ZM ZW

IW - SHRINK PROOF ANIMAL HAIR SHEEP WOOL SUBJECT ANIMAL HAIR PULSE CORONA  
PROCESS OXIDATION CHLORINE FREE OXIDATION AGENT ENZYME TREAT ALKALINE  
PROTEASE

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PROCESS OXIDATION CHLORINE FREE OXIDATION AGENT ENZYME TREAT ALKALINE  
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INW - SHIMIZU Y; TAKAGISHI T

NC - 108

OPD - 2003-02-06

ORD - 2004-08-19

PAW - (DAIW ) DAIWA KASEI KK

TI - Shrink-proofing animal hair fiber such as sheep wool, involves  
subjecting animal hair fiber to pulse corona processing or oxidation  
using chlorine-free oxidizing agent and enzymatically treating the  
fiber with alkaline protease